

H3C S6850 & S9850 & S9820-64H Static Multicast MAC Address Entry Configuration Examples

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Introduction

This document provides configuration examples of static multicast MAC address entries.

Prerequisites

The configuration examples in this document were created and verified in a lab environment, and all the devices were started with the factory default configuration. When you are working on a live network, make sure you understand the potential impact of every command on your network.

This document assumes that you have basic knowledge of multicast MAC addresses.

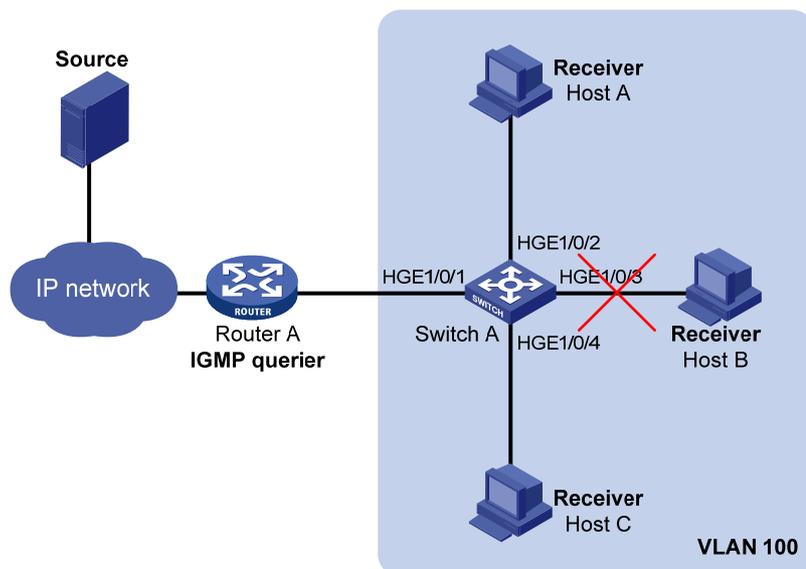
Example: Configuring static multicast MAC address entries

Network configuration

As shown in [Figure 1](#), Router A runs IGMP and acts as the IGMP querier. Switch A does not run a Layer 2 multicast protocol.

Configure a static multicast MAC address entry on Switch A so that only Host A and Host C can receive multicast data for multicast group 224.1.1.1.

Figure 1 Network diagram



Analysis

Multicast MAC address entries guide Layer 2 multicast forwarding. They can be dynamically created through Layer 2 multicast protocols or manually configured by binding multicast MAC addresses and ports.

In this example, Switch A does not run a Layer 2 multicast protocol. To control destination ports of Layer 2 multicast data, configure a static multicast MAC address entry on Switch A.

Applicable hardware and software versions

The following matrix shows the hardware and software versions to which this configuration example is applicable:

Hardware	Software version
S6850 switch series S9850 switch series	Release 6555P01
S9820-64H switch	Release 6555P01

Restrictions and guidelines

When you configure multicast MAC address entries, follow these guidelines:

- You must specify an unused multicast MAC address in a manually configured multicast MAC address entry.
- By default, Ethernet interfaces, VLAN interfaces, and aggregate interfaces are shut down. You must first use the **undo shutdown** command to bring them up. This example assumes that all these interfaces are already up.

Procedures

On Switch A, create VLAN 100.

```
<SwitchA> system-view  
[SwitchA] vlan 100  
[SwitchA-vlan100] quit
```

Configure HundredGigE 1/0/1 through HundredGigE 1/0/4 to operate in Layer 2 mode, and assign the ports to VLAN 100.

```
[SwitchA] interface range hundredgige 1/0/1 to hundredgige 1/0/4  
[SwitchA-if-range] port access vlan 100  
[SwitchA-if-range] quit
```

Translate the multicast IP address 224.1.1.1 to a multicast MAC address (0100-5e01-0101). (Details not shown.)

Create a static entry for the multicast MAC address 0100-5e01-0101 with HundredGigE 1/0/2 and HundredGigE 1/0/4 in VLAN 100 as outgoing ports.

```
[SwitchA] mac-address multicast 0100-5e01-0101 interface hundredgige 1/0/2 hundredgige 1/0/4 vlan 100
```

Verifying the configuration

Display static multicast MAC address entries for VLAN 100 on Switch A.

```
[SwitchA] display mac-address multicast vlan 100
```

MAC Address	VLAN ID	State	Port/NickName	Aging
0100-5e01-0101	100	Multicast	HGE1/0/2	N

The output shows that HundredGigE 1/0/2 and HundredGigE 1/0/4 have become outgoing ports of the multicast MAC group 0100-5e01-0101.

Configuration files

```
#
vlan 100
#
interface HundredGigE1/0/1
  port link-mode bridge
  port access vlan 100
#
interface HundredGigE1/0/2
  port link-mode bridge
  port access vlan 100
#
interface HundredGigE1/0/3
  port link-mode bridge
  port access vlan 100
#
interface HundredGigE1/0/4
  port link-mode bridge
  port access vlan 100
#
mac-address multicast 0100-5e01-0101 interface HundredGigE1/0/2 HundredGigE1/0/4 vlan 100
#
```

Related documentation

- *H3C S6850 & S9850 Switch Series IP Multicast Configuration Guide-Release 655x*
- *H3C S6850 & S9850 Switch Series IP Multicast Command Reference-Release 655x*
- *H3C S9820-64H Switch IP Multicast Configuration Guide-Release 655x*
- *H3C S9820-64H Switch IP Multicast Command Reference-Release 655x*